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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,658	04/13/2004	Tetsuyo Ohashi	03500.018075	3144

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EXAMINER

COLILLA, DANIEL JAMES

ART UNIT PAPER NUMBER

2854

DATE MAILED: 11/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/822,658	OHASHI ET AL.	
	Examiner	Art Unit	
	Daniel J. Colilla	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 1-7 are objected to because of the following informalities: in claim 1, in the third to last line, "a motor" appears to be a double recitation of the motor that was previously recited with respect to the first both-side roller. Appropriate correction is required.

Claim Rejections - 35 USC § 102

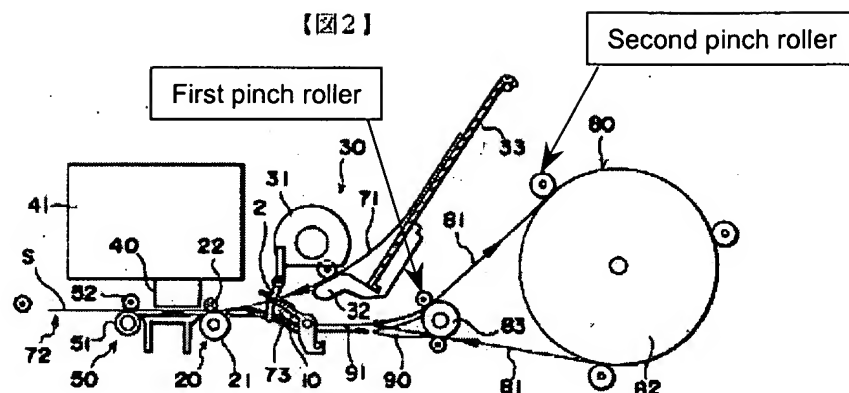
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimomura et al. (JP 2002-127541).

With respect to claim 1, Shimomura et al. discloses a recording apparatus for recording on a recording medium S with a recording head 40 including a conveying roller 51 provided upstream of the recording head 40, a first both-side roller 83 that abuts a first side of the recording medium S, a first pinch roller (adjacent roller 83 as shown in Figure 2) that rotates with roller 83, a second both-side roller 82, provided downstream of the first both-side roller 83, that abuts the recording medium S and a second pinch roller 89 (see Figure 1) that rotates with the second both-side roller 83 as shown below in the Figure taken from Figure 2 of Shimomura et al.:



Although a motor is not explicitly mentioned, Figures 3-6 of Shimomura et al. show a power transmission for driving the rollers 82 and 83. A power transmission such as the one shown must inherently be driven by some type of rotary motor force.

With respect to claim 2, Figures 1-2 of Shimomura et al. show that the diameters of the both-side rollers are greater than that of their respective pinch rollers.

With respect to claim 3, the above Figures shows that the first both-side roller and second both-side roller are provided at an inner side of a conveying path of the recording medium S and the first pinch roller and second pinch roller are provided at an outer side of the conveying path.

With respect to claim 4, paragraph [0019] of Shimomura et al. discloses that the recording apparatus is an ink jet recording apparatus and therefore the recording head 40 executes recording by an ink jet process.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimomura et al. (JP 2002-127541), as applied to claim 1 above, and further view of Jurrens et al. (US 6,679,599) and Yokoi et al. (US 5,988,809).

With respect to claims 5-6, Shimomura et al. discloses the claimed recording apparatus except that the materials used for the both-side rollers and the pinch rollers are not known to the examiner. However, Jurrens et al. teaches a both-side recording apparatus (Jurrens et al., col. 4, lines 51-53) which includes a roller 100 that contacts a recorded side of the recording sheet 106 and a roller 110 that contacts a non-recorded side of the sheet 106 (Jurrens et al., col. 2, lines 50-57). In col. 3, lines 6-10, Jurrens et al. discloses that the roller 110 may have a decreased hardness by using a material such as vulcanized rubber for the roller 100. This would create a relatively elastic surface. It would have been obvious to combine the teaching of Jurrens et al. with the both-side printing apparatus disclosed by Shimomura et al. for the advantage of the heated roll 100 for drying the printed ink faster.

Yokoi et al. teaches a recording apparatus including a pinch roller (spur) 309 that can have a hard chromium plating (non-elastic) (Yokoi et al., col. 11, lines 15-19). It would have been obvious to combine the teaching of Yokoi et al. with the recording apparatus disclosed by Shimomura et al. for the advantage of the pinch roller (spur) that is resistant to wear.

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6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimomura et al. (US 5,772,343) in view of Jurrens et al. (US 6,679,599) and Yokoi et al. (US 5,988,809) as applied to claim 5 above, and further in view of Asada (JP 2001-261181).

Shimomura et al. in view of Jurrens et al. and Yokoi et al. discloses the claimed apparatus except for the polymer resin of the non-elastic material. However, Asada discloses that it is known to make a hard (non-elastic) roller 26b in a recording apparatus out of Acetal resin (machine translation of Asada, paragraph [0027], line 8). Acetal is also known as polyacetal, polyoxymethylene (POM), or polyformaldehyde and, therefore is a polymer resin. It would have been obvious to combine the teaching of Asada with the apparatus disclosed by Shimomura et al. in view of Jurrens et al. and Yokoi et al. because polymers provide a lightweight and non-corrosive alternative to other materials such as metals.

Response to Arguments

7. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hanaoka et al. and Watanabe are cited to show other examples of recording apparatus including two both-side rollers pressed by pinch rollers.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Colilla whose telephone number is 571-272-2157. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on 571-272-2168. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

November 15, 2005



Daniel J. Colilla
Primary Examiner
Art Unit 2854